

Constructivist Grounded Theory: A Qualitative Research Design

Muhammad Hassan Khoso¹, Azadar Hussain Khuwaja² and Saifullah Jamali³

<https://doi.org/10.62345/jads.2023.12.3.94>

Abstract

The chapter on the research methodology is an integral part of any research project for it guides the researcher on how to collect and analyze the data in the relevant area of research. To be more specific, it comprises data collection and data analysis methods. In this context, the Grounded Theory (GT) in general and the Constructivist Grounded Theory (CGT) in particular is one of the several research methodologies that offer its methods of data collection and data analysis. The GT in general and the CGT in particular is a qualitative research methodology that is used in the studies of social sciences and other related subjects. Since several literature review papers have been published on the topic of understudy, there is still a need to shed light on the topic in detail. Therefore, this paper aims to provide step-by-step methods of data collection and data analysis of the CGT. As the CGT is the modified version of the GT, in this paper we have also shed light on the origin and the development of the CGT. Since the CGT was introduced by Charmaz, we have described her proposed methods of data collection and data analysis step-by-step. Sampling, memo writing, coding (initial, in-vivo, axial, and focused), and theoretical integration are illustrated in detail in this paper. This paper will be very insightful for those novice researchers who intend to conduct studies in the field of social sciences including education, nursing, etc. by choosing the constructivist grounded theory as their research methodology.

Keywords: Grounded Theory, Positivist Approach, Constructivist Approach, Data Analysis

Introduction

The Grounded Theory (GT) is qualitative, interpretive, and analytical and offers to construct a theory or model from the data (Charmaz, 2000, 2006, 2016; Mohajan & Mohajan, 2022). The main objective of the grounded theory is theory building not the theory testing. It serves as a suitable research design when no other existing theory explains a process fully (Corbin & Strauss, 2015; Thornberg & Dunne, 2019). It provides ground to record and interpret the subjective experiences of individuals. The theoretical sampling and the constant comparisons are the methodological processes of this theory with what subjective experiences of individuals are abstracted into the theoretical statements (Mohajan, 2020). With the help of the grounded theory research methods, researchers have not only highlighted and investigated important social issues globally but also have suggested suitable solutions to those issues (Cepellos & Tonelli, 2020; Cullen & Brennan, 2021).

¹Assistant Professor, Govt. Boys Degree College Matli and PhD Scholar at University of Sindh, Jamshoro,

Email: khosomhammadhassan@gmail.com

²Assistant Professor, Govt. Boys Degree College Matli. Email: azadar.ap.18@gmail.com

³Assistant Professor, Govt. Boys Degree College, New Saeedabad. Email: Jamalisaifullah32@gmail.com



The concept of the Grounded Theory (GT) first time was proposed by two American sociologists Barney Galland Glaser (1930-2022) and Anselm Leonard Strauss (1916-1996) in 1967. They have discussed the concept through their book “The Discovery of Grounded Theory” (Mohajan & Mohajan, 2022, p.2). Glaser and Strauss (1967) demonstrate that grounded theory is the most popular qualitative research methodology which is useful for conducting studies in social sciences. They further propose that the grounded theory is more inductive and conceptual than descriptive. However, Bryant and Charmaz (2007) claim that Glaser and Strauss’s approach to grounded theory is more deductive than inductive. Similarly, Edwina and McDonald (2019) claim that their approach towards the GT appears to be more deductive than inductive. They seem to have focused on testing of hypothesis rather than developing a theory from it. Therefore, their approach is said to be positivist. Mahajan and Mohajan (2022) opine that Glaser and Strauss’s arguments on the GT are based on the merging of both the quantitative and the qualitative methods. However, later on, both Glaser and Strauss were found deviated from their collaborated concepts of the GT. They disagreed with one another in several areas of the GT, which resulted in their parting away in their upcoming research. Glaser used to emphasize that his version of the GT was the classic and had no need to develop it. Strauss and Corbin also realized that the original concepts of the GT were not sufficient to consider the final aspects. They have attempted to bring modifications to the original GT by introducing coding systems such as open, axial, and selective coding (Birks & Mills, 2011).

As a result of Glaser and Strauss’s disagreements on the version of the original GT, two different versions of the GT, the positivist, and the postpositivist, were proposed in the 1990s. Glaser focuses on the positivist approach of the GT whereas Strauss with his co-author Corbin proposes a postpositivist type of the GT (Seidel & Urquhart, 2013). Glaser’s version of the GT is called as Glaserian model and Strauss’s version of the GT is called the Straussian model (Richards & Morse, 2007). Glaswegian version of the GT, which is also known as the traditional or classic, is based on the objectivity of methodology. It mainly focuses on developing a conceptual theory in which the data reveals the theory. There is no comprehensive coding process in this version of the methodology (Edwina & McDonald, 2019).

Since the modifications in the GT have begun taking place since its origin, Kathy Charmaz has been recognized as the leading theorist who has introduced the constructivist approach of the GT. Her modified version of the GT is known as the Constructivist Grounded Theory (CGT) (Mohajan & Mohajan, 2022). Through the constructivist approach of the grounded theory, researchers seek to understand how and why individuals build meanings and actions under particular situations. Following the constructivist approach of the GT, researchers construct theories out of the stories told or constructed by the participants who try to explain what they had experienced or are experiencing (Charmaz, 2000, 2006, 2009). Symbolic interaction, methodology of ethnography, studies of culture, studies of phenomenological discourse, and narrative analysis are key social constructivist assumptions that can be dealt with through interpretive theorizing (Charmaz, 2009). Charmaz (2016) argues that the construction of grounded theory is to be followed through an inductive approach. Researchers do not discover theories and do not remain detached from the research process. Bryant and Charmaz (2007) think that the inductive approach enables researchers to be part of the study and data for they interact with people, know their perspectives, and be involved in research activities. Researchers being social scientists act as interpreters of the data rather than authority of defining it. The collection and analysis of the data take place concurrently. Researchers move back and forth between data collection and data analyses. They, after a close reading of sufficient data, conceptualize categories with inductive reasoning. The CGT focuses on

understanding the phenomenon through interpretation and description rather than explaining and predicting. The interpretive elements are used as tools for emphasizing and understanding the scope of the phenomenon (Charmaz, 2009, 2017).

Origin and Development of the CGT

Kathy Charmaz, a US sociologist, was the first theorist who began introducing the concept of constructivist grounded theory (CGT) in 1995. She started developing her basic ideas from the works of Glaser and Strauss whom she considered her mentors (Charmaz, 2000, 2009, 2017). Charmaz started contributing to the development of the CGT by publishing articles and book chapters. She became the leading theorist in propounding this new research area. She gave name to this innovative research area as the *Constructivist Grounded Theory (CGT)*. Her remarkable book “*Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*” published in 2006 is worth mentioning. Charmaz alone as well as in collaboration with co-authors has produced a series of books and research papers on the CGT. Her contribution by introducing and developing the CGT has invigorated the importance of research in the field of social sciences (Mohajan and Mohajan, 2022).

Since the CGT originated and developed after the modifications made in the original GT proposed by Glaser and Strauss, it has been identified as an independent version of the grounded theory methodology (Mohajan, 2020). According to Charmaz (2000, 2006, 2009), the CGT offers flexible methods of data collection and data analysis through which theories are generated not discovered. Researchers construct theories by interacting with their participants and data. The CGT provides the platform to collect, code, analyze, and categorize data theoretically using systematic processing. The CGT focuses on the reflexivity of researchers, the active involvement of participants, and the establishment of contextual detail. Since the CGT aims at constructing theories through simultaneous data collection and data analysis processes, it offers its research design with step-by-step methods. Data collection methods followed by sampling and data analysis methods followed by memo writing, coding (initial, in-vivo, axial, and focused), and theoretical integration are key steps that are undertaken in the research design of CGT methodology.

The argument is that the constructivist grounded theory approach being different from the positivist ground theory approach is qualitative and flexible through which theories are generated not discovered. It offers its methods of data collection and data analysis. In light of the above arguments, the main objective of this paper is to describe step-by-step methods of the data collection and data analysis of the CGT. In addition, this paper also aims at differentiating between the positivist and the constructivist approaches of the GT by illustrating the origin and development of the CGT. This paper will be very insightful for those novice researchers who intend to conduct studies in the field of social sciences including education, nursing, etc. by choosing the constructivist grounded theory as their research methodology.

Literature Review

Cassandra Groen and her coworkers have illustrated the significance of the grounded theory. Their work on the GT is classified into three sections. In the first section, they have introduced the methodology of GT. In the second section, they have made a comparison between two approaches of the GT such as the classic grounded theory as proposed by Glaser and Strauss, and the constructivist grounded theory as proposed by Kathy Charmaz. In the last section, they tried to pinpoint the strategies for implementing the GT (Groen et al., 2017). However, they have not discussed step-by-step strategies of the constructivist grounded theory as suggested by Charmaz.

Tebogo Mogashoa has also contributed by discussing the constructed grounded theory by mentioning various types of constructivism (Mogashoa, 2014). However, the study does not discuss the strategies of the CGT. Gina Higginbottom and Erica Lauridsen's study also provides literature on CGT. They discuss how the CGT of Charmaz has evolved from the GT of Glaser and Strauss. They describe the aspects of the evolving process of the CGT. They conclude that the CGT is a very useful methodology for researchers who intend to conduct studies in the field of nursing (Higginbottom & Lauridsen, 2014). However, their study does not discuss the fundamental steps that Charmaz has suggested for designing the CGT. Elaine Keane's study discusses the positivist-constructivist nexus of grounded theory and its implementation to study for increasing participation in higher education in Ireland (Keane, 2014). Andrew Gardner and his coauthors have sought to figure out the importance of CGT as a research methodology in the practice of mental health nursing (Gardner et al., 2012). However, the study does not provide the point-by-point procedures of the CGT.

Kul Prasad Khanal has revealed that CGT passes through various stages of integration. Inductive, abductive, and deductive reasoning takes place throughout the integration process (Khanal, 2018). Henrik Lindqvist & Camilla Forsberg's paper demonstrates how the CGT can be a useful research methodology for conducting qualitative research in the field of education to enhance teacher's work in the classroom. They focus on three benefits of the CGT: (a) participant's perspectives, (b) an open exploratory approach, and, (c) theoretical coding (Lindqvist & Forsberg, 2022). However, we do not find step-by-step processing of the CGT in their paper. Devajit Mohajan and Haradhan Kumar Mohajan's study from the CGT perspective is also worth mentioning. They have given an overview of both the classical and the constructivist approaches of the grounded theory. They have also described the origin and evolution of both the classical and the constructivist approaches of the GT. They mainly highlight the significance of the CGT after its being proposed by Charmaz as a useful qualitative research methodology (Mohajan & Mohajan, 2022). However, their study does not describe step-by-step aspects of the CGT as proposed by Charmaz.

The detailed review of existing literature on the topic understudy demonstrates that the step-by-step methods of the CGT have not been discussed. Therefore, the present study attempts to fill this gap by providing the step-by-step methods of the data collection and data analysis that are undertaken in the CGT methodology as proposed by Charmaz. Therefore, this paper is very significant for that it will be a principal guide for novice researchers to know how to go through with the CGT when it is chosen as a research methodology for their studies.

Methodology

Since this paper is based on the literature review of the GT in general and the CGT in particular, the relevant research articles, printed books, ebooks of popular theorists, latest conference papers, research theses, internet, websites, etc. have been used as the secondary data sources (Mohajan, 2018, 2020; Mohajan & Mahajan, 2022). In this paper, the reliability and validity have been maintained by quoting the authentic material of famous authors in the relevant fields. Since the CGT has evolved from the GT, at the beginning of the study we have tried to brief about GT, its origin, and development. Then we have discussed the origin and development of the CGT. Since the CGT was introduced and developed first time by Kathy Charmaz, the American sociologist, we have provided her suggested strategies step-by-step.

Step-by-Step Methods of Data Collection and Data Analysis of the CGT

Since the data collection and data analysis for generating theory go concurrently in the CGT approach (Charmaz, 2000, 2006, 2009, 2017), they are discussed below.

Data Collection Methods

For developing a fresh theory or modifying an already existing theory or model, a researcher requires detailed, focused, and thick data. Data can be collected in both oral and written forms. Interviews, texts, field notes, written personal accounts, detailed compiled narratives, historical documents, government records, and organizational information, etc. are the main sources of data collection (Charmaz, 2006, 2017). Corbin and Strauss (2008) classify sources of data collection into two forms of literature, i.e., technical and nontechnical for constructing a theory or model. According to them, biographies, diaries, documents, memoirs, manuscripts, records, reports, catalogs, material used as primary data, interviews, and field observations belong to nontechnical literature. On the other hand, reports of research studies, theoretical or philosophical articles, and disciplinary writings belong to technical literature.

Charmaz (2000, 2006) illustrates that ethnography, intensive interviews, and textual analysis are some of the main methods used for data collection in the constructivist approach of grounded theory. There are mainly two types of texts that the researchers refer to construct a grounded theory: the elicited texts and the extant texts. The elicited texts offer data collection from the participants of the research in the written form that the researchers request them to respond. On the other hand, the extant texts comprise several documents that the researchers study. Researchers can use both the elicited and the extant texts as primary or supplementary sources of their data collection. Charmaz (2009, 2016, 2017) further demonstrates that the sources of the elicited texts are the mailed questionnaires and the internet surveys with open-ended questions. These texts include those written texts which are requested by ethnographers and interviewers to their participants who cannot easily be accessed. In addition, the recorded family or work histories, personal diaries, daily logs, or answers to the written questions from participants, logs, journals, and published autobiographies are also included in the elicited texts. The extant texts, on the other hand, are public records, government reports, organizational documents, mass media, literature, autobiographies, personal correspondence, internet discussions, and earlier qualitative materials from data banks. Researchers' using of extant texts for evaluation influences readers' understanding that such texts reflect reality. The best way of drawing valuable data from the extant texts is by answering the questions about the information provided in these texts. The extant texts may be assumed as analytical sources of the data.

According to Corbin and Strauss (2008), researchers can also use a cache of archival material for the data. It is equivalent to a collection of interviews or field notes. Researchers can derive concepts from the cached archival material the way they derive from the interviews and field notes. The documentary data is often found in a single or many libraries' agencies or organizations in a scattered form. For collecting data from documentary sources, researchers have to justify where the relevant concepts are to be located and gathered from. They can locate material from documents by using the technique of answering questions. They use bibliographic research techniques and internet browsing purposefully in the library stacks and sampling.

Sampling

Generally, sampling is used in the quantitative research designs. Random and purposeful sampling are common sub-terms of sampling. The term 'random sampling' represents the quantitative

collection of data. In this, the data is collected by specifying the population before analysis with controlled variables. However, the 'non-random sampling' is associated with qualitative research designs (Corbin & Strauss, 2008, p.318). Like other qualitative studies, in the CGT purposeful sampling is employed. Since the foundation of the theoretical sampling in the GT is based on the concepts not persons, purposeful sampling plays a vital role here (Charmaz, 2006, 2009, 2016). In the CGT approach, sampling is attempted in two ways: the initial sampling and the theoretical sampling. The initial sampling refers to the stage where researchers begin their studies. The theoretical sampling, on the other hand, offers direction to the researchers to tell where they have to go. During initial sampling, researchers propose criteria from where and by whom they have to collect data. It is the stage where researchers require relevant material for analysis. There is no particular limit to the sampling. The CGT needs no unnecessary amount of data to be used in developing the theory. This is because the large amount of data may further embarrass the researcher and may lose essential features of the processing of the theory. The theoretical sampling is a concurrent process in grounded theory construction. Targeted data collection and analytic memo-writing occur concurrently. It helps in obtaining data by explicating categories. Once categories are fully developed, they reflect analytic sense which further can be integrated to frame a coherent framework (Charmaz, 2006). Theoretical sampling is an activity of sampling for constructing the properties and dimensions of categories. It is led by memo writing. It helps researchers to elaborate and refine theoretical concepts for constructing properties for framing chief categories. Researchers look for statements, events, or cases that form sampling to illuminate their categories. Already identified categories are also part of the theoretical sampling. This activity continues until fresh properties stop emerging from the data. The stage where no fresh categories emerge is called saturation. Theoretical sampling saves researchers from being stuck in unfocussed analysis (Charmaz, 2006, 2009, 2016).

Data Analysis Methods

Analysis is a process. Through the process of analysis, the researchers generate, develop, and verify the concepts from the data. The analysis of the first piece of the data leads to the construction of concepts. Researchers compare concepts with one another to find similarities and differences. Having found weak concepts, they expand them by including new properties and dimensions to enrich them. If new concepts emerge from those properties, they further add properties and dimensions to those concepts. Hence the list of the relevant concepts goes on increasing until saturation where no new concepts emerge from the data (Charmaz, 2006). For the CGT approach, the data collection and data analysis take place simultaneously. Researchers emerge analysis from data and shape their analysis as per guidelines of the grounded theory methods (Charmaz, 2009). Researchers for theoretical sampling need not go out to collect entire data before starting the analyses but rather their analyses take place with the first set of data gathered (Charmaz, 2016). Corbin and Strauss (2008, pp.144-145) state, "Data collection leads to analysis. Analysis leads to concepts. Concepts generate questions and questions lead to more data collection". They also say that qualitative research is often exploratory in which hypotheses are generated not tested. Research questions or hypothetical statements are framed in such a manner that they offer the researchers flexible and free platforms for exploring topics of interest in some depth. Charmaz (2006) argues that since the constructivist grounded theory follows an analytical process, interpretation and description using tools of asking questions and constant comparison are very important aspects.

As an analysis involves interpretation, researchers act as interpreters who translate or interpret the words and actions of other people or participants to the audiences. The main pillar of a qualitative analysis is an interpretation of data aiming to derive concepts. Researchers interpret what participants share in the forms of their experiences, utterances, actions, interactions, problems, and issues. A careful interpretive understanding of data is the foremost requirement for constructing grounded theory. Researchers shall aim to understand what participants contribute without adopting or reproducing the views of participants as their own (Charmaz, 2006). On the other hand, description is not a theory but is a fundamental aspect of theorizing. Description plays a vital role in conceptual ordering. First, data is organized into distinct categories in terms of their properties and dimensions. Then, those categories are elucidated using description (Corbin & Strauss, 2008). Conceptual ordering varies from analyst to analyst depending upon the nature of the study. Qualitative researchers mainly deal with theory or theoretical-model-based studies and organize data about classificatory schemes. During the process of analyses, researchers identify items from data and define them according to their range of general properties and dimensions. To develop relationships among various properties and dimensions, researchers may add some amount of descriptive material to explain them more clearly. The interplay between the form and the content of data with an interpretive approach is the key aspect that remains under focus throughout the coding process. The constructivist approach of grounded theory allows researchers to be more flexible with analytical and interpretive techniques while coding the data. The researchers can go through the data self-consciously and systematically to avoid gaps (Charmaz, 2017).

Memos and Coding

Memos and coding are fundamental requirements for constructing the theoretical framework guided by the grounded theory approach. Memos are informal analytic notes that researchers write at the beginning of the study data and are regarded as the major phase of analysis for those whose main goal is constructing a theory-based framework. Memos-writing is an exercise of narrative interpretation of the data to view and synthesize it. In other words, it is a process of defining analytic claims in narrative form. Through memos, researchers develop clusters and expand categories first, and then sort them according to categories and properties, hence both major and minor categories are shaped. This process takes place throughout the study. Precisely, memos-writing is the process of coding. Coding is the categorization of the data. Segments of data are categorized with short names. Coding demonstrates how researchers have selected, separated, and sorted data to commence an analytic accounting of them after synthesizing hundreds of pages of any kind of text. Codes lead to building categories of various kinds. The coding is the bone of analysis. When the codes are combined through theoretical integration, they provide a working analytic frame. Mainly coding is classified into the initial, in-vivo, axial, and focused types (Charmaz, 2000, 2006, 2009, 2017).

Initial Coding

Initial or open coding refers to the frequent development of codes from the data. The researchers open up the data into all possible meanings and suggest interpretive conceptual names to them. Concepts are of lower level and higher-level. Higher-level concepts are referred to as categories or themes. The lower-level concepts are indicated as properties or dimensions of those higher-level concepts. This process is called the conceptualization of the data into categories or concepts (Charmaz, 2006, 2009). To construct concepts, firstly the researchers break the data into convenient pieces or chunks and then interpret those pieces to explore meaningful ideas and then

suggest conceptual names for those interpreted ideas. Here the researchers merely function as interpreters (Charmaz, 2016, 2017). The researchers code data word by word, line by line, and incidents by incident by underlining or highlighting which fits into the category framework. Through words by words the process of analyzing the data, attention is drawn to images and meanings. The focus remains on the structure and flow of words to see how they influence sense. Lines-by-lines or sentences by sentence coding allows the researcher to remain open to the data and helps to dig into the depth of the analysis by comparing data. The incidents-to-incidents coding process is useful because it helps not only to compare incidents with incidents at the time of coding but also allows us to compare those incidents with conceptualized incidents coded prior. The coding offers to gain analytic insights by looking for similar and dissimilar events by defining and comparing patterns (Charmaz, 2009, 2016, 2017).

In-vivo Coding

At the initial stage of the coding, in-vivo coding becomes very helpful because in-vivo coding allows researchers to borrow or draw names of categories or concepts directly and as it is from the data. The three kinds of in-vivo coding such as 'general terms', 'innovative terms', and 'insider shorthand terms' are very helpful (Charmaz, 2006, p. 55). General terms are those terms or concepts that are widely used in the data or the terms that everyone knows and shares. Innovative terms are those terms that participants or data produce and have significant meaning. Insider shorthand terms refer to a specific group of terms that offer a reflection of the perspective of the participants. Studying and adapting in-vivo codes and their exploration help to develop a deeper understanding of what is shared and what it means. Such codes also offer clues to seek similarities and dissimilarities between various concepts. While doing in-vivo coding care needs to be made to see how codes could be fit together to be developed theoretically (Charmaz, 2006, 2009).

Axial Coding

Axial coding is the third type of codification followed by initial and in-vivo coding through which the concepts are developed. With the help of initial coding (including in-vivo coding), the data is broken into chunks or pieces and is given conceptual labels or names. Here the data is converted into concepts. Concepts are said to be properties and dimensions of a category or even a sub-category. Through the axial coding, the categories are linked with sub-categories. The highlighted chunks or pieces of text are copied and assembled under the relevant categories or concepts which further leads to the construct of core categories. The axial coding is the first stage of integrating relevant categories and subcategories. Through the initial coding, the researchers break data into separate pieces and codes whereas through the axial coding, the broken pieces or chunks are combined again into a coherent whole. The axial coding helps in relating categories to subcategories and identifies the properties and dimensions of a category. It leads to the construction of a core category. Precisely, axial coding aims at sorting, synthesizing, and organizing a great amount of data and reassembling them in fresh ways after open coding. Both the open coding and the axial coding go together (Charmaz, 2006, 2009, 2016).

Focused Coding

Another important type of the coding is the focused coding. In focused or selective coding, the researchers select and re-select the most significant initial codes shaped in combination with axial coding through the technique of comparison to establish core categories. The researchers integrate different concepts by merging them and selecting the most important core categories. During the

focused coding, the researchers select the initial significant categories and arrange them to frame large batches of the data. The focused codes are more straightforward, selective, and conceptual. They are framed from initial recurrent codes for sorting, synthesizing, and explaining larger segments of the data. This combining of important initial codes together with great focus is called the process of integration (Charmaz, 2006, 2009, 2017).

The integration is the process by which the researchers decide upon a central or core category. The core category refers to the main theme. It is the core category which is surrounded by other related categories. For choosing the core category, the researchers look at several categories that they have developed during their analysis of the data. The strategy for identifying the core category is that it must have analytic power, explanatory relevance, the potentiality of linking with the rest of the categories together, and the theoretical possibility (Charmaz, 2016, 2020). The integration mainly refers to deciding a core category around which other derived categories and concepts from the data can be put together which may give the theoretical sense of the study. There are various tools with which the core category can be identified and the concepts can be integrated. Writing the storyline, making use of diagrams, and reviewing and sorting memos (either hand-written or computer-programmed) are common. In this process, the sorting of memos is used as the tool for identifying core categories and integration of concepts. The researchers may choose manual analyses through copy and paste if the data collected is not massive, and they can read and highlight the codes to make connections and form categories and themes. The memos-writing can be attempted through both computer software and manually. If the researchers know how to keep memos through computer software and sort them afterward is good. However, if they feel any difficulty then artificial intelligence is sufficient. The ideal place for memos-writing is a table in the dining room or floor of the living room where researchers can label categories and their properties on cards. This entire process of the coding, from initial to focused and then to the theoretical coding, remains interactive where the researchers interact with gathered data. They go again and again through data to observe statements very closely to grasp what is meaningful. They define codes and refine them afterward from the gathered data (Charmaz, 2009, 2014, 2020).

The entire coding process is attempted through certain analytical tools such as asking questions and the comparisons. Through asking questions, researchers can propose a variety of possible answers from the perspective of participants or data. Such answers will be only provisional. Making comparisons is another analytic tool that is used in two different ways, i.e. constant comparisons and theoretical comparisons (Charmaz, 2006, 2009, 2016).

The constant comparing method is very significant from the beginning of the study. Whatever units have to be coded are coded through the constant comparative methods. It establishes analytic distinctions whatever the level of the analytic work is. Firstly, the theorists compare data with data for finding similarities and differences, for instance, the researchers compare not only statements and incidents of the same interview with one another but also compare those statements and incidents with different interviews. They do not see data from their perspectives as truth rather they rely on the perspectives shared in the form of the data. They seek similar and dissimilar views from several collected views. This activity of seeking similarities and dissimilarities of data units leads the researchers to be more aware of the concepts that they employ and may impose on their data (Charmaz, 2008, 2010).

The theoretical comparisons are tools with which the researchers can arrive at an understanding of some phenomenon by seeking the property and dimensional level. The theoretical comparison is made when all concepts are derived from the data and integration is required of those concepts. Through this technique, the examination of concepts in terms of their properties and dimensions

and the classification of concepts is made. The rich thick description, concept analysis, and theory development are gained through the tool of theoretical comparisons (Charmaz, 2006, 2009).

Theoretical Integration

The theoretical coding is followed by the collected codes during focused coding. The theoretical codes have an integrative nature, and when they are combined, they help in telling a coherent analytic story. Therefore, theoretical coding helps not only in conceptualizing to demonstrate how codes are related but also provides a platform for moving an analytic story in a theoretical way (Charmaz, 2006). In other words, the theoretical codes provide theoretical integration. The theoretical codes are members of a theoretical family. These theoretical codes alone cannot be used as objective criteria to be applied. These theoretical codes combined into a family or framework commonly known as the theoretical framework offer insights to clarify and sharp analysis (Charmaz, 2006, 2009, 2017).

Charmaz (2006) thinks that the pre-existing framework must not be imposed on the analysis. The framework should be developed through the theoretical categorization that emerged from the data. Though the theoretical frameworks are used both in quantitative and qualitative research, there is a difference between them. The theoretical frameworks constructed through the constructivist grounded theory approach are not rigid and orthodox like the theoretical frameworks opted for purely quantitative studies. In the CGT approach, neither the extant theories are used for hypotheses testing nor the quantitative sampling is used. Hypotheses are merely generated from the data to develop questions for further data collection and data analysis.

Charmaz (2006, 2009) also argues that there are several benefits of the theoretical framework constructed through the constructivist grounded theory approach. Firstly, it offers elucidation of the conceptual logic and provides directions on how to go further. Secondly, it engages researchers to lead with ideas. Thirdly, it recognizes preceding theoretical works. Fourthly, it helps in positioning the grounded theory that researchers develop about the earlier theoretical works. Overall, it provides a platform for explaining the importance of the original concepts developed by the researchers. Though researchers can use previously identified theoretical frameworks as insightful direction for that they can take a useful list of initial concepts from them, they must seek what is latest said about that knowledge. They have to be open to new ideas and concepts and remain ready to let go of certain imported concepts that do not fit the data.

Conclusion

In this study, we have come to observe that grounded theory in general is a qualitative research methodology that is used in the studies of social sciences and other related subjects. The GT as a methodological approach first of was first proposed by two American sociologists Glaser and Strauss in 1967. Initially, their positivist approach to the GT methodology seems to have been restricted only to the studies of natural sciences. However, it was Kathy Charmaz who took the initiative of modifying the rigid methods of the GT by introducing the constructivist approach to the grounded theory. Her designed Constructivist Grounded Theory (CGT) is regarded as an appropriate and consistent methodology for the studies of social sciences and other related subjects. Charmaz has proposed the CGT as a systematic research methodology with step-by-step methods of data collection and data analysis. In this paper, we have provided an overview of two approaches, the positivist and the constructivist, of GT followed by the origin and the development of the CGT. We have also provided step-by-step methods of the data collection and data analysis

of the CGT research design as proposed by Charmaz. During the analysis of the literature on the CGT, we have come to observe that the CGT has gained popularity worldwide on account of its flexible and reflexive nature. Researchers, throughout the world, are working in this area with great interest.

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